

REMARKS

The present application proposes in one embodiment a new scheme for encoding video data. In this scheme, a programmable switch, in one embodiment, selects either an intra or I frame, a predicted or P frame, or a skipped or S frame for inclusion in the encoded data. While this embodiment is simply one implementation of the invention, it is easy to see that claim 1 covers such a situation. The reference cited by the Examiner considers the possibility of intra and predicted frames, but never contemplates the idea of the S or skipped frame.

Claim 1 calls for providing error data to indicate motion in an image, determining a characteristic of the error data, such as its magnitude, and, based on that characteristic, determining whether to use the error data to indicate motion in an image. In other words, in the claim a specific judgment is made whether to use the error data or not. No suggestion of the non-use of data to create what in one embodiment is called a skipped frame, is provided in the cited reference.

For example, the office action indicates that the cited reference discloses providing error data 20. The item 20 appears to be a selective adder or subtractor. It is stated in the specification at column 12, starting at line 5, that the error video frame is constructed as either the difference between or the sum of the motion compensated video frame and the video frame under consideration in a circuit 20. Thus, it seems that the circuit 20 is not the error, but it is the block that does either addition or subtraction. The addition or subtraction is the addition or subtraction of the output from item 10, which is the frame under consideration and the input from below which is the motion compensated video frame. Thus, the only possibilities for output from the circuit 20 are either the addition of the two inputs or their subtraction.

The office action goes on to suggest that the motion vector 130 is used if the magnitude of the error data is below a value. The only discussion of item 130 appears to be in column 7 at lines 19 *et seq.* There it is stated that the motion estimation circuit 70 produces the motion vectors 190, being consumed by the motion compensation circuit 80 and also transmitted (130) together with the encoding video frame 120. Thus, it appears that the motion vector 130 and encoded video frame 120 are both transmitted. There does not appear to be any basis to suggest that depending on the magnitude of some error data, the error data may be used or not used.

The office action at the bottom of page 4 also makes reference to multi-resolution motion estimation (90, 100). But the only reference to this material in the reference is at column 7, line


11, where it states that the motion estimation circuit can comprise of two parallel circuits (90) and (100), each of these circuits, determining one of the estimation error norms. Then there is no suggestion of the concept of a skipped frame or of determining, based on a characteristic, whether to use the error data to indicate motion of an image.

Therefore, reconsideration of the rejection is respectfully requested. For similar reasons, the other claims distinguish over the art of record.

In view of these remarks, the application is now in condition for allowance.

Respectfully submitted,

Date: September 8, 2003



Timothy N. Trop, Reg. No. 28,994
TROP, PRUNER & HU, P.C.
8554 Katy Freeway, Ste. 100
Houston, TX 77024
713/468-8880 [Phone]
713/468-8883 [Fax]